

Claims

- 1 1. A sole for an article of footwear, the sole comprising:
2 a sole layer; and
3 a mesh layer at least partially embedded in the sole layer.
- 1 2. The sole of claim 1, wherein the mesh layer comprises a contoured surface.
- 1 3. The sole of claim 1, wherein the mesh layer comprises a knit structure formed from
2 thread.
- 1 4. The sole of claim 3, wherein the thread comprises a plurality of spun fibers.
- 1 5. The sole of claim 1, wherein the mesh comprises a material selected from the group
2 consisting of metals, polyesters, polyamides, aramids, and combinations thereof.
- 1 6. The sole of claim 1, wherein at least a portion of the mesh layer extends beyond a bottom
2 surface of the sole layer.
- 1 7. The sole of claim 1, wherein the mesh layer is substantially coterminus with a bottom
2 surface of the sole layer.
- 1 8. The sole of claim 1, wherein the sole layer comprises a profile groove defined by a
2 bottom surface of the sole layer.
- 1 9. The sole of claim 1, wherein the sole layer comprises a damping material.
- 1 10. The sole of claim 9, wherein the damping material comprises a material selected from the
2 group consisting of ethylene vinyl acetate, polyurethane, rubber, and combinations thereof.
- 1 11. An article of footwear comprising:
2 an upper;
3 a sole layer attached to the upper; and
4 a mesh layer at least partially embedded in the sole layer.
- 1 12. The article of claim 11, wherein the mesh layer comprises a contoured surface.
- 1 13. The article of claim 11, wherein the mesh layer comprises a knit structure formed from
2 thread.
- 1 14. The article of claim 13, wherein the thread comprises a plurality of spun fibers.
- 1 15. The article of claim 11, wherein the mesh comprises a material selected from the group
2 consisting of metals, polyesters, polyamides, aramids, and combinations thereof.
- 1 16. The article of claim 11, wherein at least a portion of the mesh layer extends beyond a
2 bottom surface of the sole layer.

1 17. The article of claim 11, wherein the mesh layer is substantially coterminus with a bottom
2 surface of the sole layer.

1 18. The article of claim 11, wherein the sole layer comprises a profile groove defined by a
2 bottom surface of the sole layer.

1 19. The article of claim 11, wherein the sole layer comprises a damping material.

1 20. The article of claim 19, wherein the damping material comprises a material selected from
2 the group consisting of ethylene vinyl acetate, polyurethane, rubber, and combinations thereof.

1 21. A method for manufacturing a sole for an article of footwear, the method comprising the
2 steps of:

3 providing a mold;

4 inserting a mesh into the mold; and

5 forming a sole layer in the mold, the sole layer having a mesh layer at least partially
6 embedded in the sole layer.

1 22. The method of claim 21, further comprising the step of applying the mesh to an inner
2 surface of the mold.

1 23. The method of claim 21, further comprising the step of providing a mold having an inner
2 surface structure complementary to the mesh.

1 24. The method of claim 21, further comprising the step of providing a mold having an inner
2 surface structure for forming profile grooves in a bottom surface of the sole layer.

1 25. The method of claim 21, wherein at least a portion of the mesh layer extends beyond a
2 bottom surface of the sole layer.

1 26. The method of claim 21, wherein the mesh layer is substantially coterminus with a
2 bottom surface of the sole layer.

1 27. The method of claim 21, further comprising the step of forming the sole layer in the mold
2 by injection molding.

1 28. The method of claim 21, further comprising the step of forming the sole layer in the mold
2 by compression molding.

1 29. A method for manufacturing an article of footwear, the method comprising the steps of:
2 providing a mold;
3 inserting a mesh into the mold;

4 forming a sole layer in the mold, the sole layer having a mesh layer at least partially
5 embedded in the sole layer; and
6 attaching an upper to the sole layer.

1 30. The method of claim 29, further comprising the step of applying the mesh to an inner
2 surface of the mold.

1 31. The method of claim 29, further comprising the step of providing a mold having an inner
2 surface structure complementary to the mesh.

1 32. The method of claim 29, further comprising the step of providing a mold having an inner
2 surface structure for forming profile grooves in a bottom surface of the sole layer.

1 33. The method of claim 29, wherein at least a portion of the mesh layer extends beyond a
2 bottom surface of the sole layer.

1 34. The method of claim 29, wherein the mesh layer is substantially coterminous with a
2 bottom surface of the sole layer.

1 35. The method of claim 29, further comprising the step of forming a sole layer in the mold
2 by injection molding.

1 36. The method of claim 29, further comprising the step of forming a sole layer in the mold
2 by compression molding.